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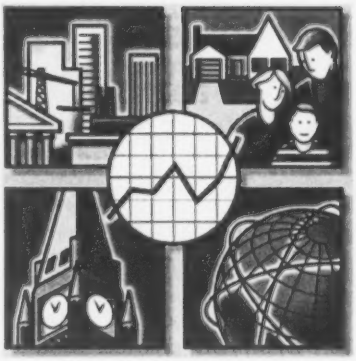
Purchasing Power Parities and Real Expenditures, United States and Canada, 2002 to 2009



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Purchasing Power Parities and Real Expenditures, United States and Canada, 2002 to 2009

This paper provides the latest annual results for the U.S./Canada purchasing power parities and real expenditure indexes in the U.S. compared with Canada for the period 2002 to 2009. Revisions to previously published data and an update using the most recent U.S. and Canada expenditure data from the national accounts and in-depth price comparisons for 2005 are incorporated. The paper provides a primer on purchasing power parities and related measures and why they are important in international comparisons of economic performance. It also describes a new methodology for total economy measures that is now based on final domestic demand prices and shows the impact of this change on the data.

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Executive summary

Purchasing power parities (PPPs) are estimates of relative purchasing power between two or more currencies. By adjusting to a common currency and a common set of prices, they can be used to make international comparisons of the relative volumes of goods and services invested in or consumed.

An improvement to the methodology for the total economy PPP, incorporated with the previous data release, is described in this report. This new method yields a higher PPP for the total economy in the last few years compared to a PPP extrapolated under the old method using gross domestic product (GDP) implicit price indexes. The new extrapolation method, which uses implicit price indexes for final domestic demand, is consistent with how PPPs are calculated in the benchmark year, which should help to reduce revisions to the data.

Some of the key findings are:

- the PPP for domestic income rose from 0.83 in 2002 to 0.90 in 2008 before dropping back to 0.88 in 2009, meaning that the purchasing power of the Canadian dollar went from 83 percent to 88 percent of that of the American dollar;
- per capita real expenditure on final goods and services in the United States was 21 percent higher than in Canada in 2002, but only 15 percent higher in 2009;
- real consumption by Americans was 34 percent more than that of Canadians in 2002, but only 23 percent more in 2009.

1 Introduction

This report presents purchasing power parities (PPPs), associated real expenditure and other related statistics for the United States (U.S.) relative to Canada from 2002 to 2009. It serves to update the report published in 2007[1] and subsequent data releases.

The statistics incorporate the latest prices from the Eurostat-Organisation for Economic Cooperation and Development (OECD) PPP Programme's benchmark exercise for 2005. Current dollar expenditure and corresponding price indices from the Canadian System of National Accounts (released in May, 2010) and the U.S. National Income and Product Accounts (released in August, 2010) have also been used. The latter include significant revisions due to the incorporation of the 2002 U.S. Input-Output tables.[2] For this reason, the PPP-related data have been revised back to 1992.

A description of PPPs and why they are important is next, followed by discussions of the sources and methods and the quality of the data, and a summary of the key changes introduced by this report. Finally, the main findings of the study are presented, including comparisons with previously published data and those from the OECD.

2 What are PPPs?

In its simplest form, a PPP is a ratio of the price of a good or service in one country in the national currency relative to the price of the same item in another country expressed in its currency. In other words, it represents a currency conversion rate that would equalize the purchasing power of the two currencies for the commodity in question. For example, a PPP of 0.90 signifies that 90 cents U.S. purchases the same quantity of the specified good or service as $1 Canadian; thus the U.S. dollar has greater purchasing power than its Canadian counterpart.

Purchasing power parity is said to exist between two countries if the ratio of prices in one country relative to the other equals the exchange rate. Where differences exist, theory suggests that it would be advantageous to exchange currencies and buy a commodity from the cheaper source. In practice, this theory is valid only for tradable goods and services.

Having precise specifications of a commodity is very important in ensuring that the same commodity is, in fact, priced in both countries. Comparing the price of a luxury automobile in one country with an economy car in another would reveal very little about the relative price levels for automobiles in the two countries. On the other hand, comparing prices of the exact same make and model with the same characteristics, such as engine size, with air conditioning, automatic transmission, CD player, etc., tells us much more.

Another important condition in deriving PPPs is that the commodities being priced should be representative of the goods and services actually bought and sold in the marketplace. In other words, enough units of the product should be sold so that its price is considered typical for that category of expenditure.

The detailed price ratios (or price relatives) are combined to produce more aggregated statistics by weighting each detailed component by the final expenditure on that item in a particular year. For example, a PPP for consumer purchases of vehicles is calculated by first taking an average of price relatives for many different automobile models and combining that statistic with price relatives for both motorcycles and bicycles. A PPP for total expenditure on vehicles is obtained by weighting each of the PPPs for the three components (automobiles, motorcycles, bicycles) by their respective expenditures. In this way, price relationships are built up from a very detailed level to increasingly aggregated statistics, eventually arriving at PPPs for individual expenditure on transport, individual consumption expenditure of households and, ultimately, GDP.[3]

1. *Purchasing Power Parities and Real Expenditures, United States and Canada, 1992 to 2005*. 2007. Statistics Canada Catalogue 13-604. Income and Expenditure Accounts Division Technical Series, no. 53.
2. See Seskin, Eugene P. and Smith, Shelly, "Improved Estimates of the National Income and Product Accounts — Results of the 2009 Comprehensive Revision," available from www.bea.gov.org for a discussion of the changes.

The PPPs and related data are presented on two different bases: expenditure and consumption. This is because comparison of the usual expenditure-based aggregates can be misleading, insofar as there are varying levels of state involvement in financing consumption. Accordingly, data are also presented in terms of the consumer, rather than the purchaser. Estimates of actual individual consumption are obtained by adding government expenditure on goods and services to be consumed by individuals to purchases made by individuals. Health and education are prime examples of services where the government sector plays a bigger role in Canada than in the United States. Along with housing, recreation and culture and social protection, these are services often paid for by the government sector, but actually consumed by individuals. The remaining expenditure by the government sector represents collective consumption, which includes spending on defence, the environment, infrastructure maintenance, etc.

The PPP detail are presented in the data tables as components of GDP. They are indicators of relative prices but can also be used as income deflators. Real income represents the ability to purchase goods and services. Changes in real income thus lead to changes in real consumption. Other statistics in this report include ratios of real expenditure per capita, comparative price levels and the relative shares of various components of GDP in terms of real and current expenditure per capita. Comparative price levels are the ratios of PPPs to exchange rates, and are calculated for each final demand category and GDP itself. A value above/below 100 indicates a higher/lower price level for a country relative to a reference country.[4]

3 Why are PPPs important?

The fact that purchasing power differences exist makes PPPs increasingly relevant. Studies of countries' relative economic size in nominal terms, converted from one currency to another using the exchange rate, for instance, do not fully allow for differences in price levels between countries. For example, comparing the nominal per capita GDP of Canada with that of a developing nation would likely not be a valid comparison in that prices tend to be lower in developing countries. With a lower price level, demand for the same good can be satisfied by spending less. Consequently, an exchange rate-adjusted GDP does not provide an accurate indicator of the relative size of the two economies.

Even neighbouring countries sharing a similar economic structure, such as the United States and Canada, have price level differences that are not fully explained by the exchange rate. This is because the market exchange rate is based on more than prices of traded goods and services. International financial flows, for instance, play a major role in establishing a currency's level.

A PPP which differs from the market exchange rate therefore, does not mean one country's currency is over- or undervalued relative to another. Exchange rates can be volatile, and their use in converting output to a common currency can translate into unrealistic variations in that income or output.

For these reasons, PPPs are more appropriate for use in cross-country economic comparisons. By converting expenditure data to a common currency and a common set of prices, the resulting relative volumes of goods and services invested in or consumed can be more readily and reliably compared.[5]

3. The calculation of PPP estimates in a multilateral framework is more complicated than in a bilateral exercise. For instance, price relatives for products need to be derived for each country pairing. See OECD-Eurostat, *Purchasing Power Parities and Real Expenditures, 2005 Benchmark Year, 2007*, pp. 31-34 for a more complete discussion of these issues.

4. The choice of a reference country is arbitrary, but it is usually one of the countries under study. In the present study, Canada is the reference country so data for Canada are in the denominator.

5. *The System of National Accounts 1993* recommends the publication of Geary-Khamis statistics which have the advantage of additivity. These would allow for structural analysis involving ratios and shares of components relative to aggregates. Their feasibility and suitability for use in the U.S./Canada Bilateral PPP Program will be examined in a future update. See *System of National Accounts 1993*, 16.78-16.104 for further discussion.

4 Sources of data

Much of the price data used in this report are collected regularly by member countries as part of the Eurostat-OECD PPP Programme. Benchmark estimates are made every three years for this multilateral exercise. A list of over 3000 commodity specifications is established for which countries are asked to provide as much price information as possible. Many of the specifications are somewhat generic in nature, as exact matches can be difficult to find across all countries.

Whereas the Eurostat-OECD PPP Programme uses hourly compensation data for forty-six different types of government sector occupations to estimate prices for government goods and services, the U.S./Canada Bilateral PPP is based on more aggregated hourly compensation estimates for the health, education, and other components of the government sector from the national accounts of both countries. Both are input-cost approaches, due to the fact that government goods and services are not sold on the market.

Where data for certain spending categories are typically not available, PPP studies rely on "reference" pricing. For example, PPPs for individual expenditure on rents can be used as proxies for government expenditure on housing. Other cases of reference pricing are PPPs for net exports, inventory change, personal expenditure on games of chance and government expenditure on social protection. For example, the combined PPP for consumer goods and investment in machinery and equipment is used as a proxy for that of inventory change. Commodities for which prices are occasionally unavailable are estimated using the movements of an appropriate price index.

Annual data on current dollar expenditure from the Canadian System of National Accounts and the U.S. National Income and Product Accounts serve as weights to derive aggregate PPPs. Corresponding price information is used to extrapolate PPPs from benchmark years.

5 Data quality

As noted above, this study relies on much of the Canadian and U.S. data from the Eurostat-OECD multilateral programme but, as it involves only two countries, is more effective at using only prices relevant for North America. Goods and services which might be considered Euro-centric, such as diesel-powered automobiles are not included. Also, with only two countries on which to focus, more detailed confrontation between data made available to the OECD and those published by the two countries, as well as more detailed methodologies, are feasible.

Data on prices of commodities purchased by consumers tend to be of good quality as these are often taken from the Consumer Price Index databases in both countries, where coverage is broad and products are well-defined and easily understood. Rents, however, tend to be problematic, as ensuring that the quality of the product is the same in both countries is difficult to achieve.

While hourly compensation data derived for various components of the government sector are considered to be of good quality, they do not account for productivity changes and so do not always capture pure price change.

The weakest component of the PPP exercise is undoubtedly the pricing of capital goods. The wide range of machinery and construction projects makes it difficult to ensure that identical products are being priced. For example, the price of a new dwelling will depend to a large extent on its location, i.e., land value, which is not included in the price under national accounting principles. As well, because many construction projects are unique, an input-based method is often used to estimate relative prices. For example, instead of pricing a particular project, prices are obtained for its standard elements, such as masonry work, installing plumbing or electrical work.

Software prices are of good quality as they rely on readily available pre-packaged prices for off-the-shelf products and salary rates for computer-related occupations for own-account and custom work.

Where reference prices (or proxies) are used for commodities for which no prices are available, the resulting loss in quality is not considered to be serious in terms of total GDP. Proxies are drawn from items that are as similar as possible, with the implicit assumption that the price relationship is the same.

Along with various price statistics, Canadian and U.S. expenditure data used for this report come from the national accounts of both countries. The quality of these data, and hence the PPP-related estimates, tends to improve over time as more comprehensive source data become available.

6 Key changes

This section explains two key changes made to the methodology; the first relating to the benchmark PPP estimate, the second to the extrapolation of this estimate.

First, in the past, U.S./Canada bilateral PPP studies used the exchange rate as a proxy for the PPP for net exports. This approach assumed that exchange rate changes are immediately and fully reflected in market prices of traded goods and services, which is not supported by empirical evidence,[6] among other concerns (see Section 3). With the new methodology, a PPP aggregate for domestic consumption and investment (i.e., final domestic demand) is now used for the trade balance in benchmark years. This is because final domestic demand prices are more appropriate for use in estimating purchasing power over items bought with the income generated through trade. This is similar to the procedure used in country comparisons for the Penn World Tables[7] and is consistent with the calculation of quarterly real gross domestic income (GDI) for Canada.[8]

Second, in the past, the aggregate PPP was extrapolated from the benchmark year using the relative movements in the GDP implicit price indexes. In using these indexes, terms-of-trade adjustments affecting the Canadian economy in the post-benchmark years were essentially treated as price changes and thus removed from the real income measure. Estimates of PPPs are now extrapolated from the benchmark year using relative movements in the prices of goods and services available for domestic consumption and investment (i.e., final domestic demand). The result is a total economy PPP consistent with the measure of purchasing power for the benchmark year, and one that will more accurately reflect the real income effects of changes in Canada's terms of trade through time. It will also help to minimize revisions of the estimates.[9]

In Chart 1, the PPPs shown by the lower line containing point A were the result of an extrapolation from benchmark year 2002 using GDP deflators. It can be seen that the incorporation of benchmark data for 2005 resulted in a significant upward revision that shifted the overall PPP in that year from A to B. The use of GDP deflators to extrapolate from the most recent benchmark year (now 2005) would have resulted in a declining trend after 2006, with an upturn in 2009, as shown by the lower of the two lines emerging from point B. The use of final domestic demand prices to extrapolate, however, properly captures the terms-of-trade improvements in the Canadian economy through to 2008, and deterioration in 2009, as shown by the top line.

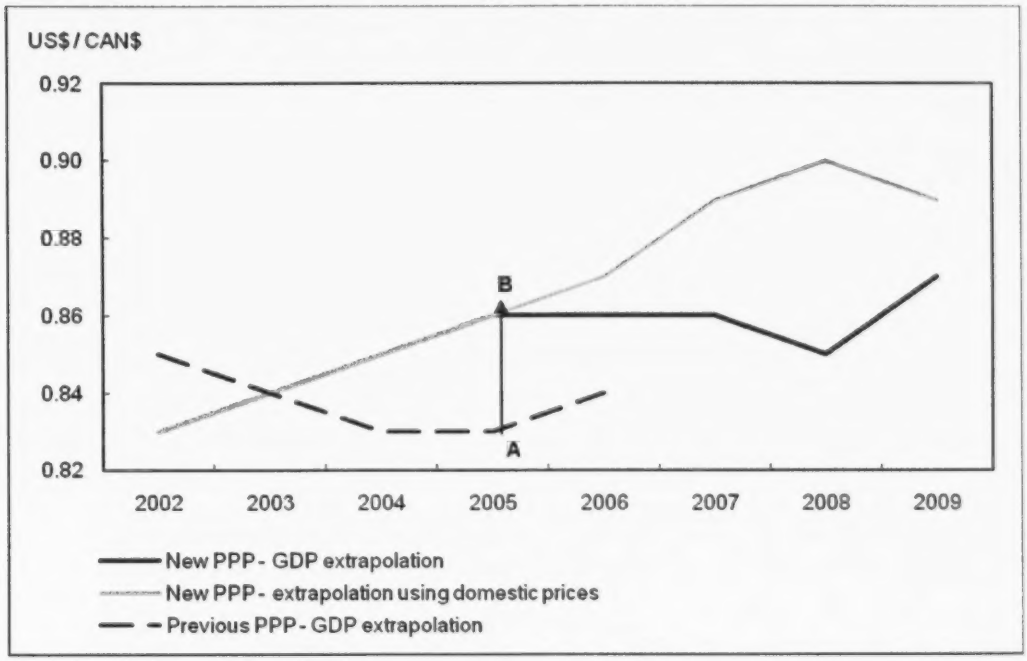
6. Baldwin, J.R. and B. Yan. 2004. *The Law of One Price: A Canada-U.S. Exploration.* Review of Income and Wealth, 50, 1: 1-10.

7. See Deaton, Angus and Heston, Allan. 2008. *Understanding PPPs and PPP-Based National Accounts.* Cambridge, MA. National Bureau of Economic Research, Working Paper 14499.

8. CANSIM Table 380-0062.

9. See Baldwin, John and Macdonald, Ryan, 2009. *PPPs: Purchasing Power or Producing Power Parities?* Statistics Canada Catalogue 11F0027. Economic Analysis (EA) Research Paper Series, no. 58.

Chart 1
Alternative PPP extrapolations



7 Results

Table 1A shows the PPP and real expenditure per capita statistics for 2009. The data are shown both in terms of consumption and expenditure. The former is more appropriate for international comparisons, as these data are corrected for varying levels of state involvement in the financing of consumption. For example, while individual Americans purchased 46 percent more overall than Canadians on a per capita basis in 2009, they actually consumed only 23 percent more. This reflects the fact that the government sector finances individual consumption to a greater extent in Canada than in the United States.

Table 1.A United States/Canada PPPs and real expenditure per capita, 2009

	PPP	Real expenditure per capita[1]
Consumption basis		
Gross domestic product	0.88	115
Actual individual consumption	0.89	123
Actual collective consumption	0.81	152
Gross fixed capital formation	0.94	79
Expenditure basis		
Gross domestic product	0.88	115
Individual consumption expenditure by households	0.84	146
Final consumption expenditure of general government	0.98	81
Individual consumption expenditure by government	1.13	46
Actual collective consumption	0.81	152
Gross fixed capital formation	0.94	79
Type of product[2]		
Goods	0.81	106
Services	0.97	120

1. Real expenditure per capita is derived by applying the following formula: (U.S. expenditure per capita/PPP)/Canadian expenditure per capita.

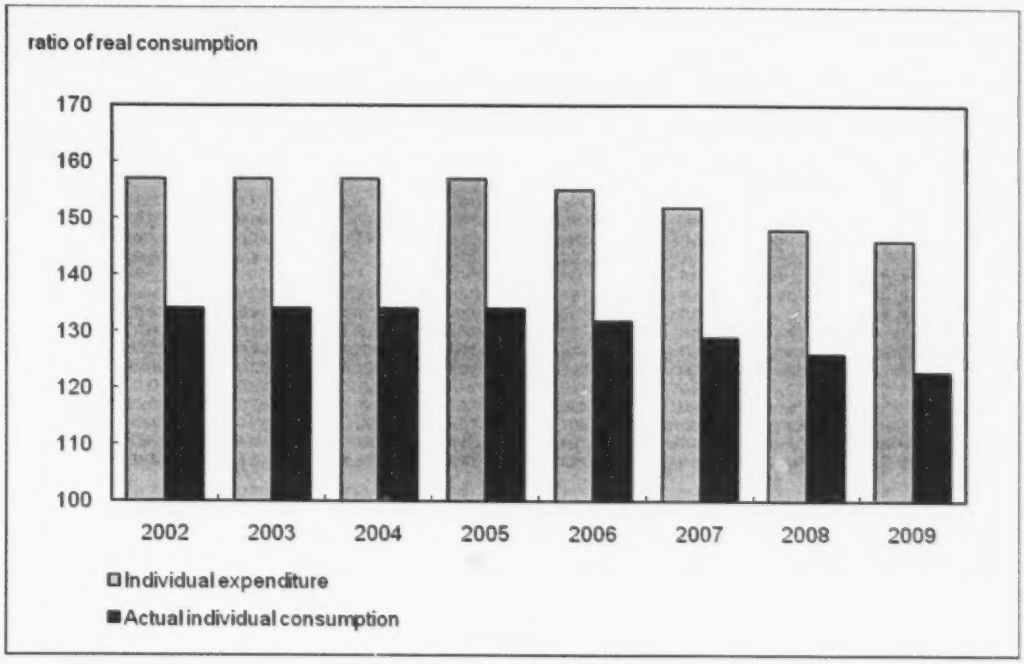
2. The balance of exports and imports is not assigned to either category, being a mix of goods and services.

The per capita volume of gross fixed capital formation in the United States declined to 79 percent of that in Canada in 2009 from 114 percent in 2002. From 2002 to 2009, total business residential construction in the United States fell 44 percent in real terms compared to an 8 percent increase in Canada while the volume of U.S. business final demand for machinery and equipment increased 10 percent compared to a 22 percent jump in Canada. The faster pace of growth in machinery and equipment in Canada is partly due to a stronger Canadian dollar over the period, which reduced the price of imported machinery and equipment.

Consumer and capital goods together have a PPP of 0.81, meaning that the purchasing power of the Canadian dollar over goods was 81 percent that of the U.S. dollar in 2009. On the other hand, a PPP of 0.97 for consumer and government services combined, means that there was almost equivalent purchasing power in terms of services overall.

After 2004, both individual consumption expenditure and actual individual consumption of Americans vis-à-vis Canadians declined (see Chart 2). This reflects the impact of terms-of-trade adjustments that resulted in increases in purchasing power of the Canadian dollar up to 2008. By 2009, per capita individual consumption expenditure in the United States was only 46 percent more than that in Canada, compared to 57 percent in 2002, while actual per capita individual consumption was only 23 percent higher, versus 34 percent in 2002.

Chart 2
Ratios of real consumption per capita, United States versus Canada

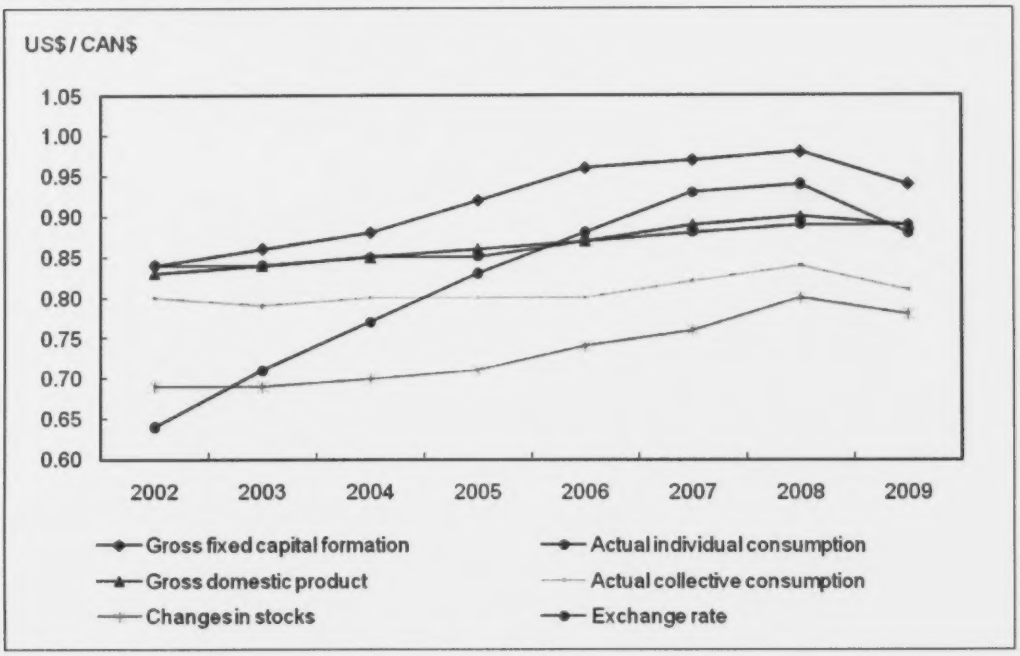


The PPP for the total economy and a number of its components increased significantly from 2002 to 2008 (see Chart 3). The PPP rose to 0.90 in 2008 (the highest level on record, dating back to 1992) from 0.83 U.S. dollars per Canadian dollar in 2002, before declining to 0.88 in 2009. From 2006 to 2008, the exchange rate has exceeded the PPP for GDP, meaning that the actual purchasing power of the Canadian dollar was less than the exchange rate was suggesting during that period.[10]

The downturn in 2009 is partly attributable to the recent economic malaise in the United States, which was reflected in weaker prices there than in Canada. In addition, there was an improvement in the relative terms of trade in favour of the United States after six years of deterioration.[11] This was driven by a large decline in the price of energy[12] and a depreciation of the Canadian dollar against the U.S. dollar (see Chart 3), which raised the relative price of exports to imports in the United States, and lowered it in Canada.

10. This does not mean that the Canadian dollar was overvalued during this period or the last time this occurred (1992). As mentioned earlier, factors other than final demand for goods and services can influence the exchange rate.
11. The U.S. terms of trade grew 6.0 percent from 2008 to 2009 after 6 years of weakness, while the Canadian terms of trade declined 9.5 percent in the same period after six consecutive years of growth.
12. The Canadian price of energy exports declined 35 percent while the price of petroleum and related products imported into the United States dropped 39 percent from 2008 to 2009.

Chart 3
PPPs for GDP and major components (consumption-based)

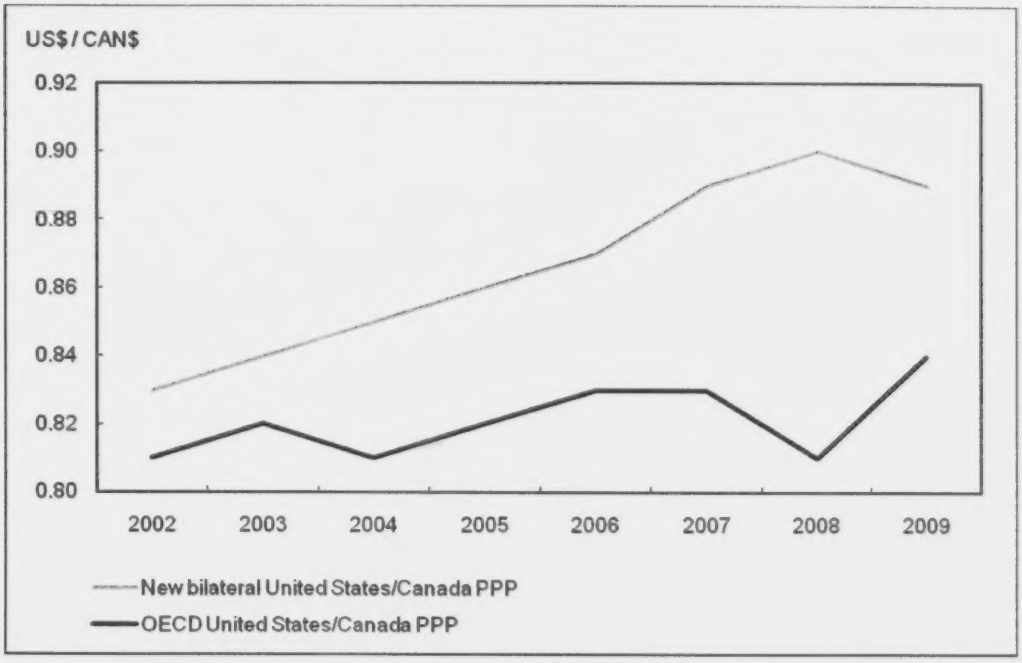


Note:The PPP for the balance of exports and imports is virtually identical to that of domestic expenditure, and so, for clarity, is excluded from the chart.

8 New results compared with OECD estimates

PPP data from the OECD multilateral study, expressed in terms of units of foreign currencies per Canadian dollar, are also published by Statistics Canada. As can be seen in Chart 4, the OECD's PPP for the total economy (United States/Canada) is lower than that of this study due to this report's use of improved estimates of prices, including a different proxy for the PPP for net trade (see Section 6 for a more detailed discussion) and up-to-date expenditure data (weights). The different movements in the two PPP series stem from the different extrapolation methods. The Statistics Canada PPP uses the relative changes in the implicit price indices for final domestic demand in the two countries, which captures changes in the terms of trade. The OECD PPP, on the other hand, is projected from the latest benchmark year using the relative changes in the two countries' GDP implicit price indexes.

Chart 4
United States/Canada PPPs: OECD versus Statistics Canada



Data tables

Table 1
Ratios of real expenditure per capita in the United States compared with Canada, selected components of gross domestic product (consumption-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	Canada = 100							
Actual individual consumption	**133.6**	**133.5**	**133.9**	**133.8**	**131.8**	**129.3**	**125.6**	**123.1**
Food and non-alcoholic beverages	124.7	126.0	127.6	132.5	133.9	133.5	130.0	128.3
Alcoholic beverages and tobacco	96.7	99.8	105.4	110.3	114.3	112.8	109.3	103.4
Clothing and footwear	156.2	156.0	156.1	156.5	153.2	151.0	145.1	139.4
Housing, water, electricity, gas and other fuels	109.7	106.2	103.8	103.5	102.8	99.8	97.2	96.3
Household furnishings, equipment and maintenance	145.0	145.3	144.8	143.1	139.5	134.8	126.5	122.8
Health	128.2	127.8	127.2	128.4	125.3	121.0	119.2	116.7
Transport	145.7	152.9	157.4	155.8	147.8	141.0	123.6	120.6
Communication	159.4	159.4	160.2	157.4	161.9	172.7	174.8	173.9
Recreation and culture	161.8	163.0	163.1	160.7	160.8	159.8	153.6	150.8
Education	108.0	109.8	111.1	109.9	104.0	105.4	105.0	102.3
Restaurants and hotels	148.0	157.3	160.4	164.7	166.4	166.6	164.3	163.0
Miscellaneous goods and services	160.4	157.4	156.9	154.6	152.8	150.3	148.2	143.5
Net purchases abroad	38.3	-4.5	3.5	-0.3	6.9	-3.9	-11.9	-10.0
Actual collective consumption	**148.8**	**150.8**	**157.5**	**160.2**	**158.5**	**156.4**	**153.3**	**151.8**
Gross fixed capital formation	**113.5**	**110.0**	**107.3**	**102.0**	**94.5**	**88.4**	**81.1**	**79.0**
Construction	90.1	89.5	88.0	84.9	77.9	71.1	63.2	58.9
Machinery and equipment	151.8	143.1	140.5	133.4	127.9	123.7	119.0	121.8
Changes in inventories	**-69.9**	**60.1**	**192.3**	**71.9**	**94.7**	**50.4**	**-102.7**	**217.8**
Balance of exports and imports	**-109.8**	**-143.9**	**-143.3**	**-179.3**	**-263.7**	**-296.6**	**-346.2**	**183.1**
Gross domestic product	**120.7**	**119.7**	**118.7**	**116.9**	**115.5**	**113.4**	**109.3**	**114.8**
Total goods	**134.2**	**132.2**	**132.5**	**128.0**	**122.2**	**116.1**	**106.4**	**106.5**
Consumer goods	148.8	152.1	154.2	154.7	150.3	144.9	133.7	133.7
Durable goods	142.5	143.3	143.4	138.5	132.1	127.5	112.6	108.8
Semi-durable goods	173.3	174.2	174.4	175.3	173.6	170.6	163.2	161.2
Non-durable goods	143.7	148.3	151.5	155.5	155.5	152.8	147.2	146.8
Capital goods	115.5	109.0	108.5	101.0	94.4	87.7	78.9	76.9
Total services	**128.2**	**127.6**	**127.9**	**127.8**	**126.1**	**123.9**	**121.8**	**119.8**
Individual services	129.4	128.8	127.9	127.5	126.8	124.4	122.9	120.2
Collective services	148.8	150.8	157.5	160.2	158.5	156.4	153.3	151.8

Notes:

Consumption-based data are presented in terms of the consuming sector rather than the one making the expenditures.

This table provides ratios of real expenditure per capita in the United States relative to those in Canada for categories of gross domestic product. The term "real expenditure" is used here to express expenditure of different countries in the same set of prices through the process of conversion with purchasing power parities. The use of the term "real" in a spatial context is analogous to its conventional use in time series, where expenditures made in different time periods are expressed in base period prices in order to measure their real growth. United States per capita expenditures in current dollars are converted to Canadian dollars by dividing them by the Fisher Purchasing Power Parities. These converted expenditures are then expressed as a ratio of Canadian expenditure per capita. The detailed categories of gross domestic product are those defined by the Organisation for Economic Co-operation and Development (OECD) and Eurostat, and vary slightly from the ones usually published for Canada in the Income and Expenditure Accounts and for the United States in the National Income and Product Accounts.

Table 2
Purchasing power parities (consumption-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	U.S. dollars per Canadian dollar							
Actual individual consumption	**0.84**	**0.84**	**0.85**	**0.85**	**0.87**	**0.88**	**0.89**	**0.89**
Food and non-alcoholic beverages	0.70	0.70	0.70	0.69	0.69	0.70	0.72	0.69
Alcoholic beverages and tobacco	0.66	0.61	0.58	0.57	0.58	0.59	0.61	0.68
Clothing and footwear	0.63	0.64	0.65	0.66	0.67	0.67	0.68	0.70
Housing, water, electricity, gas and other fuels	0.89	0.91	0.94	0.97	0.99	1.01	1.02	1.02
Household furnishings, equipment and maintenance	0.63	0.62	0.63	0.64	0.65	0.65	0.66	0.65
Health	1.29	1.30	1.31	1.30	1.31	1.33	1.34	1.33
Transport	0.66	0.65	0.64	0.65	0.67	0.69	0.74	0.71
Communication	0.84	0.83	0.81	0.79	0.78	0.75	0.75	0.76
Recreation and culture	0.66	0.66	0.68	0.69	0.70	0.71	0.73	0.72
Education	1.11	1.10	1.09	1.10	1.15	1.18	1.20	1.20
Restaurants and hotels	0.67	0.66	0.66	0.65	0.66	0.66	0.67	0.67
Miscellaneous goods and services	0.86	0.87	0.88	0.90	0.91	0.92	0.94	0.93
Net purchases abroad	0.79	0.79	0.80	0.81	0.82	0.83	0.85	0.83
Actual collective consumption	**0.80**	**0.79**	**0.80**	**0.79**	**0.80**	**0.82**	**0.84**	**0.81**
Gross fixed capital formation	**0.84**	**0.86**	**0.88**	**0.92**	**0.96**	**0.97**	**0.98**	**0.94**
Construction	0.90	0.90	0.91	0.94	0.96	0.95	0.95	0.91
Machinery and equipment	0.78	0.82	0.86	0.89	0.94	0.99	1.02	1.00
Changes in inventories	**0.69**	**0.69**	**0.70**	**0.71**	**0.74**	**0.76**	**0.80**	**0.78**
Balance of exports and imports	**0.83**	**0.84**	**0.85**	**0.86**	**0.87**	**0.89**	**0.90**	**0.89**
Gross domestic product	**0.83**	**0.84**	**0.84**	**0.86**	**0.87**	**0.89**	**0.90**	**0.88**
Total goods	**0.73**	**0.73**	**0.74**	**0.77**	**0.79**	**0.81**	**0.83**	**0.81**
Consumer goods	0.66	0.65	0.66	0.67	0.69	0.71	0.75	0.73
Durable goods	0.65	0.65	0.66	0.68	0.68	0.68	0.70	0.71
Semi-durable goods	0.62	0.62	0.63	0.64	0.64	0.64	0.66	0.66
Non-durable goods	0.69	0.67	0.67	0.67	0.69	0.70	0.73	0.71
Capital goods	0.84	0.86	0.88	0.91	0.95	0.96	0.97	0.93
Total services	**0.93**	**0.94**	**0.95**	**0.95**	**0.96**	**0.98**	**0.99**	**0.97**
Individual services	0.96	0.97	0.98	0.99	0.99	1.00	1.01	1.00
Collective services	0.80	0.79	0.80	0.79	0.80	0.82	0.84	0.81

Notes:

Consumption-based data are presented in terms of the consuming sector rather than the one making the expenditures.

Purchasing power parities are estimates of the amount of United States currency required to buy the same quantity of a given commodity that one Canadian dollar purchases in Canada. These data are based on the triennial benchmark estimates for the United States and Canada from the Organisation for Economic Co-operation and Development (OECD). With the exception of the PPP for GDP, which uses relative changes in final domestic demand prices, extrapolations from benchmark estimates are made using changes in the associated implicit price indexes of the two countries.

Table 3
Real expenditure as percentage of gross domestic product, United States (consumption-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	percentage							
Actual individual consumption	**76.2**	**76.7**	**76.4**	**76.8**	**77.0**	**77.2**	**77.9**	**77.9**
Food and non-alcoholic beverages	5.6	5.6	5.6	5.7	5.7	5.8	5.9	6.1
Alcoholic beverages and tobacco	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.8
Clothing and footwear	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.0
Housing, water, electricity, gas and other fuels	11.6	11.3	10.9	10.9	10.9	10.8	11.1	11.4
Household furnishings, equipment and maintenance	4.4	4.4	4.3	4.2	4.2	4.1	3.9	3.8
Health	9.0	9.1	9.1	9.2	9.3	9.4	9.8	10.2
Transport	9.6	9.9	10.0	10.2	9.8	9.6	8.7	7.9
Communication	1.6	1.6	1.6	1.6	1.7	1.8	1.9	1.9
Recreation and culture	8.8	8.7	8.5	8.3	8.4	8.5	8.3	8.3
Education	4.8	4.9	5.0	5.0	4.9	4.9	5.1	5.2
Restaurants and hotels	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.3
Miscellaneous goods and services	10.9	10.9	11.0	10.9	10.9	11.1	11.3	11.1
Net purchases abroad	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1
Actual collective consumption	**9.3**	**9.7**	**9.8**	**10.0**	**10.0**	**10.0**	**10.6**	**11.2**
Gross fixed capital formation	**18.2**	**17.8**	**18.1**	**18.2**	**18.0**	**17.3**	**16.5**	**14.5**
Construction	8.6	8.8	9.4	9.6	9.6	9.3	8.7	7.5
Machinery and equipment	9.7	8.9	8.6	8.6	8.4	8.0	7.7	6.8
Changes in inventories	**0.1**	**0.2**	**0.6**	**0.5**	**0.5**	**0.2**	**-0.3**	**-1.0**
Balance of exports and imports	**-3.9**	**-4.3**	**-5.0**	**-5.4**	**-5.5**	**-4.8**	**-4.7**	**-2.6**
Gross domestic product	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total goods [1]	**51.4**	**51.5**	**52.2**	**52.1**	**51.2**	**49.6**	**46.8**	**43.4**
Consumer goods	33.0	33.5	33.5	33.4	32.7	32.0	30.5	29.7
Durable goods	8.8	8.5	8.2	7.8	7.6	7.4	6.5	6.1
Semi-durable goods	7.6	7.5	7.5	7.3	6.9	6.3	5.5	5.3
Non-durable goods	16.7	17.5	17.8	18.4	18.3	18.3	18.5	18.3
Capital goods	18.4	18.0	18.7	18.7	18.4	17.6	16.3	13.8
Total services [1]	**52.5**	**52.8**	**52.8**	**53.4**	**54.3**	**55.2**	**57.9**	**59.2**
Individual services	43.2	43.2	43.1	43.4	44.4	45.3	47.4	48.1
Collective services	9.3	9.7	9.8	10.0	10.0	10.0	10.6	11.2

Notes:

Consumption-based data are presented in terms of the consuming sector rather than the one making the expenditures.

The real expenditures by category of gross domestic product for the United States, converted annually with purchasing power parities using the Paasche formula, are expressed in Canadian dollars and shown as a percentage of gross domestic product. The Paasche formula produces expenditures in real terms that sum to gross domestic product.

Components may not add to totals due to rounding.

1. Total goods and total services do not necessarily sum to 100 percent as the balance of exports and imports is not assigned to either category, being a mix of goods and services.

Table 4
Current expenditure as percentage of gross domestic product, Canada (consumption-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	percentage							
Actual individual consumption	**68.6**	**68.5**	**67.5**	**66.8**	**67.1**	**67.4**	**67.6**	**72.1**
Food and non-alcoholic beverages	5.4	5.3	5.2	5.0	5.0	4.9	5.0	5.5
Alcoholic beverages and tobacco	2.2	2.3	2.2	2.1	2.0	2.0	1.9	2.1
Clothing and footwear	2.8	2.7	2.6	2.6	2.6	2.5	2.4	2.5
Housing, water, electricity, gas and other fuels	13.0	13.0	12.8	12.6	12.6	12.7	12.9	13.9
Household furnishings, equipment and maintenance	3.6	3.6	3.6	3.5	3.6	3.6	3.5	3.6
Health	8.1	8.2	8.1	8.1	8.2	8.5	8.7	9.7
Transport	8.1	7.9	7.7	7.8	7.8	7.9	7.8	7.6
Communication	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3
Recreation and culture	6.3	6.2	6.1	6.0	6.0	6.0	5.9	6.2
Education	5.4	5.4	5.3	5.3	5.4	5.3	5.3	5.8
Restaurants and hotels	4.1	3.9	3.9	3.8	3.8	3.7	3.7	3.9
Miscellaneous goods and services	8.4	8.4	8.5	8.4	8.4	8.6	8.5	9.1
Net purchases abroad	-0.2	0.1	0.2	0.3	0.5	0.7	0.8	1.0
Actual collective consumption	**7.7**	**7.8**	**7.5**	**7.4**	**7.4**	**7.4**	**7.7**	**8.6**
Gross fixed capital formation	**19.5**	**19.6**	**20.3**	**21.3**	**22.4**	**22.7**	**22.8**	**21.5**
Construction	11.8	12.1	13.0	13.7	14.7	15.3	15.6	15.0
Machinery and equipment	7.7	7.5	7.4	7.6	7.7	7.4	7.2	6.5
Changes in inventories	**-0.2**	**0.4**	**0.4**	**0.8**	**0.6**	**0.5**	**0.3**	**-0.5**
Balance of exports and imports	**4.4**	**3.8**	**4.3**	**3.7**	**2.5**	**1.9**	**1.6**	**-1.7**
Gross domestic product	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total goods [1]	**46.2**	**46.6**	**46.7**	**47.7**	**48.5**	**48.6**	**48.3**	**46.9**
Consumer goods	26.9	26.6	26.0	25.6	25.5	25.4	25.2	26.0
Durable goods	7.4	7.2	6.9	6.8	6.8	6.8	6.6	6.6
Semi-durable goods	5.2	5.0	4.9	4.8	4.8	4.7	4.6	4.7
Non-durable goods	14.3	14.4	14.2	14.1	13.9	13.9	14.1	14.6
Capital goods	19.3	20.0	20.7	22.1	23.0	23.2	23.1	21.0
Total services [1]	**49.4**	**49.6**	**49.0**	**48.6**	**49.0**	**49.5**	**50.1**	**54.8**
Individual services	41.8	41.9	41.5	41.2	41.6	42.1	42.5	46.2
Collective services	7.7	7.8	7.5	7.4	7.4	7.4	7.7	8.6

Notes:

Consumption-based data are presented in terms of the consuming sector rather than the one making the expenditures.

Components may not add to totals due to rounding.

1. Total goods and total services do not necessarily sum to 100 percent as the balance of exports and imports is not assigned to either category, being a mix of goods and services.

Table 5
Comparative price levels, United States (consumption-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	Canada = 100							
Actual individual consumption	**131.3**	**117.4**	**110.0**	**103.4**	**98.1**	**94.0**	**95.0**	**101.3**
Food and non-alcoholic beverages	110.1	97.6	91.1	83.6	77.9	75.0	76.6	78.9
Alcoholic beverages and tobacco	103.5	84.9	75.3	69.6	66.0	63.7	65.4	77.6
Clothing and footwear	98.6	89.0	84.1	79.4	75.7	71.7	72.9	79.9
Housing, water, electricity, gas and other fuels	140.2	128.1	122.4	117.8	112.8	108.0	108.6	116.6
Household furnishings, equipment and maintenance	98.9	87.1	81.7	77.8	73.3	69.4	70.2	74.4
Health	201.9	181.7	170.0	157.7	149.1	142.8	142.7	152.3
Transport	103.8	90.7	83.7	79.0	75.9	73.9	79.4	80.9
Communication	131.9	116.3	104.8	95.4	88.6	80.5	80.1	86.6
Recreation and culture	104.0	92.9	88.3	84.1	79.6	76.2	77.6	82.4
Education	173.5	154.0	141.5	133.6	130.3	126.4	127.8	137.4
Restaurants and hotels	104.9	92.5	85.5	78.9	74.4	71.3	71.9	76.8
Miscellaneous goods and services	135.5	121.6	114.6	108.5	102.7	98.6	99.8	105.8
Net purchases abroad	123.6	110.5	103.5	97.8	93.2	89.4	90.3	95.0
Actual collective consumption	**125.2**	**111.3**	**103.5**	**96.3**	**91.2**	**87.9**	**89.1**	**92.0**
Gross fixed capital formation	**132.4**	**120.6**	**114.7**	**111.2**	**108.6**	**104.0**	**104.1**	**107.3**
Construction	141.6	126.1	117.8	113.6	109.3	102.0	100.9	104.0
Machinery and equipment	121.7	115.0	111.9	108.0	106.4	106.7	108.9	114.1
Changes in inventories	**108.0**	**96.5**	**91.0**	**86.5**	**83.8**	**82.0**	**85.5**	**89.5**
Balance of exports and imports	**130.8**	**117.2**	**110.0**	**104.1**	**99.2**	**95.2**	**96.1**	**101.1**
Gross domestic product	**130.8**	**117.2**	**109.9**	**103.9**	**99.1**	**95.1**	**96.0**	**101.0**
Total goods	**114.9**	**102.7**	**96.9**	**92.8**	**89.9**	**86.8**	**89.1**	**92.3**
Consumer goods	104.3	91.5	85.5	80.7	77.8	75.8	79.7	83.4
Durable goods	102.2	90.6	86.1	82.3	77.0	72.9	74.7	80.9
Semi-durable goods	97.2	87.0	81.9	77.2	72.7	69.0	69.9	74.9
Non-durable goods	108.0	94.1	87.1	81.4	78.0	75.6	77.8	81.1
Capital goods	132.5	120.5	114.4	110.6	108.0	103.5	103.7	106.6
Total services	**146.7**	**131.5**	**123.2**	**115.7**	**109.5**	**104.9**	**105.3**	**111.2**
Individual services	151.1	135.3	127.3	119.7	112.3	107.5	107.3	114.1
Collective services	125.2	111.3	103.5	96.3	91.2	87.9	89.1	92.0

Notes:

Consumption-based data are presented in terms of the consuming sector rather than the one making the expenditures.

Estimates in this table are calculated by dividing the purchasing power parities by the annual exchange rate (United States cents per Canadian dollar). These data allow a comparison of the general price level in the two countries. A value greater than 100 indicates a higher relative price for the U.S.; a value less than 100 indicates a lower relative price.

Table 6
Ratios of real expenditure per capita in the United States compared with Canada, selected components of gross domestic product (expenditure-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	Canada = 100							
Household final consumption expenditure	**157.0**	**156.9**	**157.3**	**157.0**	**155.2**	**152.1**	**147.7**	**145.8**
Food and non-alcoholic beverages	124.7	126.0	127.6	132.5	133.9	133.5	130.0	128.3
Alcoholic beverages and tobacco	96.7	99.8	105.4	110.3	114.3	112.8	109.3	103.4
Clothing and footwear	156.2	156.0	156.1	156.5	153.2	151.0	145.1	139.4
Housing, water, electricity, gas and other fuels	112.1	108.5	106.0	105.8	105.1	102.0	99.4	98.6
Household furnishings, equipment and maintenance	145.0	145.3	144.8	143.1	139.5	134.8	126.5	122.8
Health	441.0	444.2	436.2	432.3	418.6	404.9	400.0	396.4
Transport	145.7	152.9	157.4	155.8	147.8	141.0	123.6	120.6
Communication	159.4	159.4	160.2	157.4	161.9	172.7	174.8	173.9
Recreation and culture	180.3	182.1	182.0	179.2	179.6	178.6	172.1	169.8
Education	160.0	151.5	148.6	144.4	142.3	144.7	143.2	140.0
Restaurants and hotels	148.0	157.3	160.4	164.7	166.4	166.6	164.3	163.0
Miscellaneous goods and services	167.7	164.5	164.0	161.2	159.2	156.5	154.4	149.8
Net purchases abroad	38.3	-4.5	3.5	-0.3	6.9	-3.9	-11.9	-10.0
Government final consumption expenditure	**82.1**	**83.2**	**84.8**	**85.9**	**84.2**	**82.8**	**81.6**	**80.8**
Gross fixed capital formation	**113.5**	**110.0**	**107.3**	**102.0**	**94.5**	**88.4**	**81.1**	**79.0**
Construction	90.1	89.5	88.0	84.9	77.9	71.1	63.2	58.9
Machinery and equipment	151.8	143.1	140.5	133.4	127.9	123.7	119.0	121.8
Changes in inventories	**-69.9**	**60.1**	**192.3**	**71.9**	**94.7**	**50.4**	**-102.7**	**217.8**
Balance of exports and imports	**-109.8**	**-143.9**	**-143.3**	**-179.3**	**-263.7**	**-296.6**	**-346.2**	**183.1**
Gross domestic product	**120.7**	**119.7**	**118.7**	**116.9**	**115.5**	**113.4**	**109.3**	**114.8**
Total goods	**134.2**	**132.2**	**132.5**	**128.0**	**122.2**	**116.1**	**106.4**	**106.5**
Consumer goods	148.8	152.1	154.2	154.7	150.3	144.9	133.7	133.7
Durable goods	142.5	143.3	143.4	138.5	132.1	127.5	112.6	108.8
Semi-durable goods	173.3	174.2	174.4	175.3	173.6	170.6	163.2	161.2
Non-durable goods	143.7	148.3	151.5	155.5	155.5	152.8	147.2	146.8
Capital goods	115.5	109.0	108.5	101.0	94.4	87.7	78.9	76.9
Total services	**128.2**	**127.6**	**127.9**	**127.8**	**126.1**	**123.9**	**121.8**	**119.8**
Consumer services	162.1	160.0	159.0	157.2	155.1	151.8	149.4	147.0
Government services	82.1	83.2	84.8	85.9	84.2	82.8	81.6	80.8

Notes:

Expenditure-based data are presented in terms of the sector making the purchase.

This table provides ratios of real expenditure per capita in the United States relative to those in Canada for categories of gross domestic product. The term "real expenditure" is used here to express expenditure of different countries in the same set of prices through the process of conversion with purchasing power parities. The use of the term "real" in a spatial context is analogous to its conventional use in time series, where expenditures made in different time periods are expressed in base period prices in order to measure their real growth. United States per capita expenditures in current dollars are converted to Canadian dollars by dividing them by the Fisher Purchasing Power Parities. These converted expenditures are then expressed as a ratio of Canadian expenditure per capita. The detailed categories of gross domestic product are those defined by the Organisation for Economic Co-operation and Development (OECD) and Eurostat, and vary slightly from the ones usually published for Canada in the Income and Expenditure Accounts and for the United States in the National Income and Product Accounts.

Table 7
Purchasing power parities (expenditure-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	U.S. dollars per Canadian dollar							
Household final consumption expenditure	**0.79**	**0.79**	**0.80**	**0.81**	**0.82**	**0.83**	**0.84**	**0.84**
Food and non-alcoholic beverages	0.70	0.70	0.70	0.69	0.69	0.70	0.72	0.69
Alcoholic beverages and tobacco	0.66	0.61	0.58	0.57	0.58	0.59	0.61	0.68
Clothing and footwear	0.63	0.64	0.65	0.66	0.67	0.67	0.68	0.70
Housing, water, electricity, gas and other fuels	0.89	0.91	0.94	0.97	0.99	1.00	1.02	1.02
Household furnishings, equipment and maintenance	0.63	0.62	0.63	0.64	0.65	0.65	0.66	0.65
Health	1.13	1.14	1.14	1.14	1.15	1.16	1.17	1.17
Transport	0.66	0.65	0.64	0.65	0.67	0.69	0.74	0.71
Communication	0.84	0.83	0.81	0.79	0.78	0.75	0.75	0.76
Recreation and culture	0.64	0.64	0.65	0.67	0.68	0.68	0.70	0.70
Education	1.44	1.47	1.50	1.57	1.64	1.68	1.71	1.72
Restaurants and hotels	0.67	0.66	0.66	0.65	0.66	0.66	0.67	0.67
Miscellaneous goods and services	0.84	0.85	0.86	0.88	0.89	0.90	0.92	0.91
Net purchases abroad	0.79	0.79	0.80	0.81	0.82	0.83	0.85	0.83
Government final consumption expenditure	**0.97**	**0.97**	**0.97**	**0.97**	**0.98**	**1.00**	**1.02**	**0.98**
Gross fixed capital formation	**0.84**	**0.86**	**0.88**	**0.92**	**0.96**	**0.97**	**0.98**	**0.94**
Construction	0.90	0.90	0.91	0.94	0.96	0.95	0.95	0.91
Machinery and equipment	0.78	0.82	0.86	0.89	0.94	0.99	1.02	1.00
Changes in inventories	**0.69**	**0.69**	**0.70**	**0.71**	**0.74**	**0.76**	**0.80**	**0.78**
Balance of exports and imports	**0.83**	**0.84**	**0.85**	**0.86**	**0.87**	**0.89**	**0.90**	**0.89**
Gross domestic product	**0.83**	**0.84**	**0.84**	**0.86**	**0.87**	**0.89**	**0.90**	**0.88**
Total goods	**0.73**	**0.73**	**0.74**	**0.77**	**0.79**	**0.81**	**0.83**	**0.81**
Consumer goods	0.66	0.65	0.66	0.67	0.69	0.71	0.75	0.73
Durable goods	0.65	0.65	0.66	0.68	0.68	0.68	0.70	0.71
Semi-durable goods	0.62	0.62	0.63	0.64	0.64	0.64	0.66	0.66
Non-durable goods	0.69	0.67	0.67	0.67	0.69	0.70	0.73	0.71
Capital goods	0.84	0.86	0.88	0.91	0.95	0.96	0.97	0.93
Total services	**0.93**	**0.94**	**0.95**	**0.95**	**0.96**	**0.98**	**0.99**	**0.97**
Consumer services	0.90	0.91	0.92	0.93	0.95	0.96	0.96	0.96
Government services	0.97	0.97	0.97	0.97	0.98	1.00	1.02	0.98

Notes:

Expenditure-based data are presented in terms of the sector making the purchase.

Purchasing power parities are estimates of the amount of United States currency required to buy the same quantity of a given commodity that one Canadian dollar purchases in Canada. These data are based on the triennial benchmark estimates for the United States and Canada from the Organisation for Economic Co-operation and Development (OECD). With the exception of the PPP for GDP, which uses relative changes in final domestic demand prices, extrapolations from benchmark estimates are made using changes in the associated implicit price indexes of the two countries.

Table 8
Real expenditure as percentage of gross domestic product, United States (expenditure-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	percentage							
Household final consumption expenditure	**71.1**	**71.4**	**71.1**	**71.4**	**71.5**	**71.8**	**72.3**	**72.0**
Food and non-alcoholic beverages	5.6	5.6	5.6	5.7	5.7	5.8	5.9	6.1
Alcoholic beverages and tobacco	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.8
Clothing and footwear	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.0
Housing, water, electricity, gas and other fuels	11.6	11.3	10.9	10.9	10.9	10.8	11.1	11.3
Household furnishings, equipment and maintenance	4.4	4.4	4.3	4.2	4.2	4.1	4.0	3.8
Health	8.3	8.4	8.4	8.5	8.5	8.6	9.0	9.4
Transport	9.6	9.9	10.0	10.2	9.8	9.6	8.7	7.9
Communication	1.6	1.6	1.6	1.6	1.7	1.8	1.9	1.9
Recreation and culture	8.6	8.5	8.4	8.2	8.2	8.3	8.2	8.1
Education	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1
Restaurants and hotels	4.9	5.0	5.1	5.2	5.3	5.3	5.4	5.3
Miscellaneous goods and services	10.4	10.4	10.5	10.4	10.4	10.6	10.8	10.6
Net purchases abroad	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1
Government final consumption expenditure	**14.5**	**15.0**	**15.1**	**15.3**	**15.4**	**15.5**	**16.2**	**17.0**
Gross fixed capital formation	**18.2**	**17.8**	**18.1**	**18.2**	**18.0**	**17.3**	**16.5**	**14.5**
Construction	8.6	8.8	9.4	9.6	9.6	9.3	8.7	7.5
Machinery and equipment	9.7	8.9	8.6	8.6	8.4	8.0	7.7	6.8
Changes in inventories	**0.1**	**0.2**	**0.6**	**0.5**	**0.5**	**0.2**	**-0.3**	**-1.0**
Balance of exports and imports	**-3.9**	**-4.3**	**-5.0**	**-5.4**	**-5.5**	**-4.8**	**-4.7**	**-2.6**
Gross domestic product	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total goods [1]	**51.4**	**51.5**	**52.2**	**52.1**	**51.2**	**49.6**	**46.8**	**43.4**
Consumer goods	33.0	33.5	33.5	33.4	32.7	32.0	30.5	29.7
Durable goods	8.8	8.5	8.2	7.8	7.6	7.4	6.5	6.1
Semi-durable goods	7.6	7.5	7.5	7.3	6.9	6.3	5.5	5.3
Non-durable goods	16.7	17.5	17.8	18.4	18.3	18.3	18.5	18.3
Capital goods	18.4	18.0	18.7	18.7	18.4	17.6	16.3	13.8
Total services [1]	**52.5**	**52.8**	**52.8**	**53.4**	**54.3**	**55.2**	**57.9**	**59.2**
Consumer services	38.0	37.9	37.8	38.0	38.9	39.8	41.7	42.2
Government services	14.5	15.0	15.1	15.3	15.4	15.5	16.2	17.0

Notes:

Expenditure-based data are presented in terms of the sector making the purchase.

The real expenditures by category of gross domestic product for the United States, converted annually with purchasing power parities using the Paasche formula, are expressed in Canadian dollars and shown as a percentage of gross domestic product. The Paasche formula produces expenditures in real terms that sum to gross domestic product.

Components may not add to totals due to rounding.

1. Total goods and total services do not necessarily sum to 100 percent as the balance of exports and imports is not assigned to either category, being a mix of goods and services.

Table 9
Current expenditure as percentage of gross domestic product, Canada (expenditure-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	percentage							
Household final consumption expenditure	**56.9**	**56.6**	**55.8**	**55.3**	**55.3**	**55.6**	**55.7**	**58.9**
Food and non-alcoholic beverages	5.4	5.3	5.2	5.0	5.0	4.9	5.0	5.5
Alcoholic beverages and tobacco	2.2	2.3	2.2	2.1	2.0	2.0	1.9	2.1
Clothing and footwear	2.8	2.7	2.6	2.6	2.6	2.5	2.4	2.5
Housing, water, electricity, gas and other fuels	12.7	12.8	12.5	12.4	12.3	12.4	12.6	13.6
Household furnishings, equipment and maintenance	3.6	3.6	3.6	3.5	3.6	3.6	3.5	3.6
Health	2.5	2.5	2.5	2.6	2.6	2.7	2.8	3.1
Transport	8.1	7.9	7.7	7.8	7.8	7.9	7.8	7.6
Communication	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3
Recreation and culture	5.7	5.6	5.5	5.4	5.4	5.4	5.3	5.6
Education	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
Restaurants and hotels	4.1	3.9	3.9	3.8	3.8	3.7	3.7	3.9
Miscellaneous goods and services	7.7	7.7	7.8	7.7	7.8	7.9	7.8	8.3
Net purchases abroad	-0.2	0.1	0.2	0.3	0.5	0.7	0.8	1.0
Government final consumption expenditure	**19.4**	**19.6**	**19.2**	**18.9**	**19.2**	**19.2**	**19.7**	**21.9**
Gross fixed capital formation	**19.5**	**19.6**	**20.3**	**21.3**	**22.4**	**22.7**	**22.8**	**21.5**
Construction	11.8	12.1	13.0	13.7	14.7	15.3	15.6	15.0
Machinery and equipment	7.7	7.5	7.4	7.6	7.7	7.4	7.2	6.5
Changes in inventories	**-0.2**	**0.4**	**0.4**	**0.8**	**0.6**	**0.5**	**0.3**	**-0.5**
Balance of exports and imports	**4.4**	**3.8**	**4.3**	**3.7**	**2.5**	**1.9**	**1.6**	**-1.7**
Gross domestic product	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total goods [1]	**46.2**	**46.6**	**46.7**	**47.7**	**48.5**	**48.6**	**48.3**	**46.9**
Consumer goods	26.9	26.6	26.0	25.6	25.5	25.4	25.2	26.0
Durable goods	7.4	7.2	6.9	6.8	6.8	6.8	6.6	6.6
Semi-durable goods	5.2	5.0	4.9	4.8	4.8	4.7	4.6	4.7
Non-durable goods	14.3	14.4	14.2	14.1	13.9	13.9	14.1	14.6
Capital goods	19.3	20.0	20.7	22.1	23.0	23.2	23.1	21.0
Total services [1]	**49.4**	**49.6**	**49.0**	**48.6**	**49.0**	**49.5**	**50.1**	**54.8**
Consumer services	30.0	30.0	29.8	29.7	29.9	30.3	30.5	32.9
Government services	19.4	19.6	19.2	18.9	19.2	19.2	19.7	21.9

Notes:

Expenditure-based data are presented in terms of the sector making the purchase.

Components may not add to totals due to rounding.

1. Total goods and total services do not necessarily sum to 100 percent as the balance of exports and imports is not assigned to either category, being a mix of goods and services.

Table 10
Comparative price levels, United States (expenditure-based)

	2002	2003	2004	2005	2006	2007	2008	2009
	Canada = 100							
Household final consumption expenditure	**123.6**	**110.6**	**103.8**	**97.7**	**92.7**	**88.8**	**89.7**	**95.7**
Food and non-alcoholic beverages	110.1	97.6	91.1	83.6	77.9	75.0	76.6	78.9
Alcoholic beverages and tobacco	103.5	84.9	75.3	69.6	66.0	63.7	65.4	77.6
Clothing and footwear	98.6	89.0	84.1	79.4	75.7	71.7	72.9	79.9
Housing, water, electricity, gas and other fuels	140.2	128.1	122.4	117.7	112.7	107.9	108.5	116.6
Household furnishings, equipment and maintenance	98.9	87.1	81.7	77.8	73.3	69.4	70.2	74.4
Health	177.1	159.3	149.0	138.2	130.7	125.1	125.0	133.4
Transport	103.8	90.7	83.7	79.0	75.9	73.9	79.4	80.9
Communication	131.9	116.3	104.8	95.4	88.6	80.5	80.1	86.6
Recreation and culture	99.9	89.3	85.0	81.0	76.7	73.4	74.7	79.4
Education	225.8	206.6	195.8	190.7	186.0	180.4	182.5	196.2
Restaurants and hotels	104.9	92.5	85.5	78.9	74.4	71.3	71.9	76.8
Miscellaneous goods and services	132.5	119.1	112.5	106.7	101.0	97.0	98.2	104.1
Net purchases abroad	123.6	110.5	103.5	97.8	93.2	89.4	90.3	95.0
Government final consumption expenditure	**152.5**	**135.4**	**125.9**	**117.0**	**110.9**	**106.9**	**108.5**	**112.0**
Gross fixed capital formation	**132.4**	**120.6**	**114.7**	**111.2**	**108.6**	**104.0**	**104.1**	**107.3**
Construction	141.6	126.1	117.8	113.6	109.3	102.0	100.9	104.0
Machinery and equipment	121.7	115.0	111.9	108.0	106.4	106.7	108.9	114.1
Changes in inventories	**108.0**	**96.5**	**91.0**	**86.5**	**83.8**	**82.0**	**85.5**	**89.5**
Balance of exports and imports	**130.8**	**117.2**	**110.0**	**104.1**	**99.2**	**95.2**	**96.1**	**101.1**
Gross domestic product	**130.8**	**117.2**	**109.9**	**103.9**	**99.1**	**95.1**	**96.0**	**101.0**
Total goods	**114.9**	**102.7**	**96.9**	**92.8**	**89.9**	**86.8**	**89.1**	**92.3**
Consumer goods	104.3	91.5	85.5	80.7	77.8	75.8	79.7	83.4
Durable goods	102.2	90.6	86.1	82.3	77.0	72.9	74.7	80.9
Semi-durable goods	97.2	87.0	81.9	77.2	72.7	69.0	69.9	74.9
Non-durable goods	108.0	94.1	87.1	81.4	78.0	75.6	77.8	81.1
Capital goods	132.5	120.5	114.4	110.6	108.0	103.5	103.7	106.6
Total services	**146.7**	**131.5**	**123.2**	**115.7**	**109.5**	**104.9**	**105.3**	**111.2**
Consumer services	141.2	127.4	119.7	113.2	107.5	102.8	103.0	109.8
Government services	152.5	135.4	125.9	117.0	110.9	106.9	108.5	112.0

Notes:

Expenditure-based data are presented in terms of the sector making the purchase.

Estimates in this table are calculated by dividing the purchasing power parities by the annual exchange rate (United States cents per Canadian dollar). These data allow a comparison of the general price level in the two countries. A value greater than 100 indicates a higher relative price for the U.S.; a value less than 100 indicates a lower relative price.

Table 11
Purchasing power parities for gross domestic product, Organisation for Economic Cooperation and Development (OECD) countries

	2002	2003	2004	2005	2006	2007	2008	2009
	national currency per Canadian dollar							
Pacific group:								
Canada (Canadian dollars)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Mexico (pesos)	5.33	5.56	5.86	5.87	5.97	6.05	6.04	6.43
United States (U.S. dollars)	0.81	0.82	0.81	0.82	0.83	0.83	0.81	0.84
Japan (yen)	117	114	109	107	103	99	95	96
Korea (won)	626	648	647	650	642	635	637	673
Australia (Australian dollars)	1.09	1.10	1.11	1.14	1.17	1.18	1.20	1.23
New Zealand (N.Z. dollars)	1.19	1.22	1.23	1.26	1.23	1.24	1.21	1.25
European countries:								
Austria (euros)	0.73	0.72	0.71	0.73	0.71	0.71	0.69	0.72
Belgium (euros)	0.70	0.72	0.73	0.74	0.73	0.73	0.71	0.73
Czech Republic (koruny)	11.65	11.45	11.61	11.80	11.63	11.52	11.11	11.49
Denmark (kroner)	6.75	6.97	6.83	7.08	6.90	6.88	6.65	6.84
Finland (euros)	0.82	0.82	0.79	0.81	0.79	0.78	0.75	0.77
France (euros)	0.74	0.77	0.76	0.76	0.75	0.74	0.71	0.74
Germany (euros)	0.77	0.75	0.73	0.71	0.69	0.69	0.66	0.68
Greece (euros)	0.54	0.56	0.57	0.59	0.58	0.59	0.57	0.59
Hungary (forint)	93.45	98.34	102.63	105.96	106.50	108.69	103.69	110.43
Iceland (kronur)	74.30	77.09	76.58	81.64	88.84	92.86	96.78	104.84
Ireland (euros)	0.82	0.83	0.82	0.83	0.82	0.79	0.76	0.75
Italy (euros)	0.69	0.70	0.71	0.71	0.69	0.68	0.65	0.66
Luxembourg (euros)	0.76	0.77	0.75	0.79	0.76	0.76	0.74	0.76
Netherlands (euros)	0.73	0.76	0.74	0.74	0.72	0.71	0.68	0.71
Norway (kroner)	7.41	7.44	7.30	7.33	7.20	7.26	7.04	7.49
Poland (zlotys)	1.49	1.50	1.51	1.54	1.53	1.53	1.49	1.55
Portugal (euros)	0.58	0.58	0.58	0.56	0.55	0.55	0.52	0.54
Slovak Republic (euros)	0.43	0.45	0.47	0.47	0.46	0.45	0.43	0.44
Spain (euros)	0.60	0.61	0.62	0.63	0.61	0.60	0.59	0.59
Sweden (kronor)	7.61	7.62	7.40	7.73	7.53	7.35	7.17	7.39
Switzerland (francs)	1.44	1.45	1.43	1.44	1.37	1.32	1.27	1.29
Turkey (liras)	0.50	0.63	0.66	0.68	0.70	0.72	0.74	0.77
United Kingdom (pounds sterling)	0.51	0.52	0.51	0.52	0.52	0.53	0.51	0.52

Notes:

Based on data available from www.oecd.org, adjusted to place Canada as the reference country.

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